DOCUMENT RESUME

ED 298 955 IR 013 449

AUTHOR Bates, A. W.
TITLE W(h)ither Video? What Future Does Video Have in Schools? I.E.T. Papers on Information Technology No. 242.
INSTITUTION Open Univ., Walton, Bletchley, Bucks (England). Inst. of Educational Technology.
PUB DATE May 85
NOTE 6p.; Article for Times Educational Supplement, May 1985.
PUB TYPE Viewpoints (120)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adoption (Ideas); Change Strategies; *Costs; Courseware; Educational Television; Elementary Secondary Education; *Financial Support; Foreign Countries; *Interactive Video; *Videodisks; Video Equipment; Videotape Recordings
IDENTIFIERS *Great Britain

ABSTRACT

Focusing on why computer-controlled videodiscs are not more widely available in British schools, this brief essay considers questions considering the issues of funding for hardware, videodisc production costs, and technological difficulties. Promotion of such technology by the National Interactive Video Centre, the British Broadcasting Corporation, and Colin Mably of North East London Poly is noted. The potential for videodisc technology in the schools is examined, and strategies for making the technology more widely available in the schools are suggested. (EW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED298955

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

W(H)ITHER VIDEO?

What future does video have in schools?

Article for:
Times Educational Supplement,

May, 1985

Dr.A.W.Bates,
Reader in Media Research Methods,
I.E.T.,
Open University,
Walton Hall,
Milton Keynes, MK7 6AA

IR013449

BEST COPY AVAILABLE

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
E.S. Henderson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Promoting video-discs in schools

With teachers fighting for a basic salary, and parents increasingly having to buy essential books for their children, it might not seem the best time to encourage primary and secondary schools to invest in yet another new technology.

But that is precisely what is being suggested by three quite independent agencies. The National Interactive Video Centre, funded jointly by the DTI and the two major producers of video-discs (Thorn-EMI and Philips), is aiming to promote the introduction of interactive video discs into U.K. schools.

Secondly, the BBC, together with Philips and Acorn (the manufacturers of the BBC Micro), and again supported with DTI money, are planning the most ambitious use yet of interactive video: a 20th century Domesday book, recording life in Britain on computer and video-disc, using hundreds of school children to collect and record the data.

Lastly, a small but significant study has been carried out by Colin Mably, of North East London Poly, in which he has evaluated the use of video-discs in four London schools. As a result of the enthusiastic response from the trial teachers, Mably recommends that resources be found to put 500 players into schools, as an initial step to establishing the technology.

The potential

Why is this technology attracting so much attention (and government support)? What's in it for education - or is this just an attempt by hardware manufacturers to create a new market?

There is no denying the potential of video-discs for both primary and secondary schools. Imagine as a teacher being able to access almost instantaneously any one of 57,000 high-quality still-frame pictures. Or the ability to play back, in slow or fast motion, any sequence of moving video contained in the disc - again, each sequence fully indexed and immediately accessible.

Even the cost is not an obvious barrier - some video-disc players can now be purchased for as little as £250, and video-discs in High Street shops like W.H.Smith's are retailing at between £12 and £20.

But what really excites many people is the ability to link together a school micro and the video-disc player. This allows the computer to access or rearrange any predetermined sequence of still or moving pictures on the disc, to combine computer data with the pictures, to test pupils on what they have learned, and to give them feedback or re-route them to other parts of the disc, as appropriate.

The snags: resources

So what are we waiting for? The simple answer is three things: money, more money, and even more money.

First of all, who is going to pay for the hardware? It is salutary to remember that after 10 years, only 60% of primary schools have a video-recorder, and it took a massive funding programme from the DTI to get an average of one micro per 150 children into British schools.

If used for individual study, a well designed computer-controlled video-disc should be in use most of the time the school is open, requiring a dedicated monitor and micro system. This means investing about £2,000 for each workstation, usable by at the most three children at any one time.

Next, who is going to provide the discs appropriate for school use? Why should schools buy hardware if there is nothing to run on it? And who is going to produce the material?

The production cost for a straight video disc from scratch is unlikely to be below £20,000, so you would have to be sure of selling at least 3,000-4,000 copies at £10 each to break even. In most cases, costs will be much higher, particularly for specially designed integrated, computer-controlled discs. Here you are talking in production costs of around £100,000 per disc.

Apart from showcase projects, no publisher in their right mind would even contemplate such a risk for the impoverished and specialist schools market. Production costs of £100,000 may be reasonable for an oil company or a bank's training programme, but not for Sir Keith Joseph's State school system. And why should the broadcasting agencies take the risk of large-scale, original video-disc production for schools, without a guarantee that schools will have the necessary hardware?

The snags: technological

Even if money is found to pay for the hardware and to produce educational discs, there will still be problems. There is no single standard for video-discs. A Philips Laservision disc will not play on Thorn-EMI's VHD system - or vice versa. A computer-controlled video-disc must be linked to the specific computer/disc-player configuration for which it is designed. Some systems require a teletext TV monitor. All these factors limit the market for sales, and restrict schools' choice to the courseware that will fit their particular system.

Nor has a suitable low-cost solution yet been found to mixing computer graphics with the video picture. Several systems are available, but not a cheap and reliable one. The Domesday project is attempting to solve this problem, but the consequence will be a system on which

nothing else designed so far will play, and "courseware" that will play only on the "Domesday" system.

Decisions, decisions

So what should be done?

The courseware problem needs to be tackled first. The most promising way to supply quickly large quantities of video-disc materials suitable to schools would be to persuade the broadcasting organisations to re-edit and segment some of the existing broadcast programmes for use on discs, for sale at a price which at least covers their costs.

Secondly, we should forget for a while designing integrated computer-controlled discs for use in schools. Both the hardware and production costs are too high to justify their use on any large scale. It was "straight" video-discs that were used in the four London schools evaluated by Mably. "Straight" discs can be used in whole class contexts by teachers, and by pupils individually. If teachers are interested, they can still design their own computer programme to control the disc, when the interfacing problem has been satisfactorily solved.

But it is unrealistic to expect broadcasting organisations or publishers to make available discs suitable for schools unless they know schools have the hardware. This does mean then some central government initiative to fund the investment in hardware, linked of course to a commitment from production agencies to provide suitable discs.

Are discs the answer?

It would require a capital investment of about £7 million for hardware and £3 million for discs to supply one machine and 10 discs to every school. But is it worth it?

There is a technology already available which allows "free" broadcast material to be stored and used when required: the video-cassette. As a recent study by Ernest Choat and colleagues at London University's Institute of Education shows, teachers do not know how to use even this resource properly yet. Programmes are still being played straight through on cassettes, just as if they were a continuous broadcast.

Publishers have been very cautious in providing video-cassette materials for schools. The minimum cost for such material is around £30. Few schools have that kind of money these days, especially when they can record off-air for the price of a blank tape. The lack of adequate capitation allowances is not only affecting the quality of education, it is also killing the infant non-broadcast educational video industry. If the DTI has £10 million available for investment in new technology, it might well benefit British industry better if it was spent on higher school capitation allowances, providing more

video-cassette players in schools, and training teachers to make better use of video.

The rationale behind DTI funding of inter-active video is that Britain could become a world leader in producing high-quality "courseware" for this new technology. But there are hardly any video-disc players used in education around the world, and millions of video-cassette players. We already have a huge stock of high quality educational television which could immediately be adapted at very little cost for use as cassettes. Video-cassette technology may not be as exciting as inter-active video - but it is here now, and needs to be better exploited.